



## DSD31 / DSD33

\* DSD31 / DSD33

### Features

- \* True galvanic isolation design ensures that such serious AC mains problems as noise, lightning effects, leakage current do not reach your systems.
- \* Protection from the accidental disconnection of the neutral wire ensures the safety of the UPS and the stability of the power supply.
- \* Protection from incorrect operation ensures that violating the operation procedures will not lead to UPS or connected equipment damage.
- \* The use of up-to-date DSP, IGBT and switching components ensures the high reliability and efficiency of the UPS.
- \* Multi-CPU design increases the system reliability.
- \* Plug-and-play design and easy access to boards ensures the fastest and easiest UPS maintenance.
- \* Individual inverter for each phase ensures stable work under completely unbalanced load.
- \* Intelligent charger with temperature compensation feature ensures the longest possible battery life. The adjustable level of charging current allows the UPS to work with large battery banks for long backup time.
- \* Intelligent battery test logics eliminate the possibility of power supply interruption during battery test in case of batteries being bad. Provides the detection of battery electrolyte leakage and improper battery grounding.
- \* Intelligent fan speed control increases the fan life expectancy and reduces the audible noise.
- \* Advanced heat abstraction design by physical separation of the power and control circuitry ensures the smooth operation of the UPS under most harsh conditions.
- \* Cold start function makes it possible to start the UPS even when AC mains are not providing the power.
- \* 12-pulse rectifier ensures reduced harmonics for UPS with capacities of 80KVA and higher.
- \* Input harmonic filter reduces the Total Harmonic Distortion (T.H.D.) of the UPS.
- \* Parallel operation makes it possible to upgrade the UPS to a larger capacity.

## Specifications

PHASE		3-Phase Input/3-Phase Output															
Capacity(KVA)		10	15	20	30	40	50	60	80	100	120	160	200	240	300	320	400
<b>INPUT(RECTIFIER)</b>																	
Input Voltage		380/400/415VAC															
Input Range		+/- 20% (> +/- 20% is available upon request)															
Input Frequency		50 / 60Hz +/- 5Hz															
Power Walk In		0%~100% : 20sec															
Efficiency		≈98%															
<b>INVERTER</b>																	
Output Voltage		380/400/415VAC 3-PHASE WITH NEUTRAL															
Wave Form		Sinewave															
Output Power Factor		0.8															
Voltage Regulation		+/- 1%															
Frequency Lock Range		50 / 60Hz +/- 3Hz															
Output Frequency (Free Running)		50 / 60Hz +/- 0.1Hz															
Phase Shift Under 100% Unbalance Load		< 0.5															
T.H.D.(Linear Load)		< 2%															
Overload	< 110%	Continuous															
	110~125%	15 minutes															
	125~150%	10 minutes															
	> 150%	1 minute															
Efficiency(100% Load)		92%	92%	93%	93%	93.5%	93.5%	94%	94.5%	94.5%	95%	95%	95%	95%	95%	95%	95%
<b>STATIC SWITCH</b>																	
Voltage Range		173~277VAC (LINE TO NEUTRAL)															
Frequency Range		45~55 Hz / 55~65 Hz															
Efficiency		99.5%															
Mains to Inverter		0 ms															
Overload 100%		30 sec															
Overload 300%		1 sec															
Isolation Transformer		YES															
<b>OVERALL CHARACTERISTICS</b>																	
Maximum Heat Dissipation (kW)		1.3	1.3	1.3	1.3	1.9	2.6	3	3.5	4.6	5.4	6.5	8.7	13	17.4	17.4	18
Dimention	Heigh(mm)	1600															
	Width(mm)	550				1100				2200							
	Depth(mm)	800															
Environment	Temperature	0~40°C (32~96°F)															
	Humidity	0%~90%(Non-Condensing)															
	Altitude	< 1500M Above Sea Level															
Weight(kg)		200	250	300	400	480	550	680	820	950	1180	1450	2800	2900	3000	3100	3300
Audible Noise		< 60 dBA (At 1 m)															
Certificate	CE	YES															
	EN50091-1,2	YES															
	FCC CLASSA	YES															
Short Circuit Protection		YES															
Lightning Protection		MOV															
EMC Filter		Input & Output															
Galvanic Isolation		Input & Output True Galvanic Isolation															
LED,LCD,Buzzer		YES															
Start On Battery		YES															

\*Specifications are subject to change without notice



## Specifications

PHASE		3-Phase Input/1-Phase Output									
Capacity(KVA)		10	15	20	30	40	50	60	80	100	120
<b>INPUT(RECTIFIER)</b>											
Input Voltage		380/400/415VAC									
Input Range		+/- 20% (> +/- 20% is available upon request)									
Input Frequency		50 / 60Hz +/- 5Hz									
Power Walk In		0%~100% : 20sec									
Efficiency		≈98%									
<b>INVERTER</b>											
Output Voltage		220/230/240VAC SINGLE PHASE									
Wave Form		Sinewave									
Output Power Factor		0.8									
Voltage Regulation		+/- 1%									
Frequency Lock Range		50 / 60Hz +/- 3Hz									
Output Frequency (Free Running)		50 / 60Hz +/- 0.1Hz									
Phase Shift Under 100% Unbalance Load		< 0.5									
T.H.D.(Linear Load)		< 2%									
Overload	< 110%	Continuous									
	110~125%	15 minutes									
	125~150%	10 minutes									
	> 150%	1 minute									
Efficiency(100% Load)		92%	92%	93%	93%	93.5%	93.5%	94%	94.5%	94.5%	95%
<b>STATIC SWITCH</b>											
Voltage Range		173~277VAC (LINE TO NEUTRAL)									
Frequency Range		45~55 Hz / 55~65 Hz									
Efficiency		99.5%									
Mains to Inverter		0 ms									
Overload 100%		30 sec									
Overload 300%		1 sec									
Isolation Transformer		YES									
<b>OVERALL CHARACTERISTICS</b>											
Maximum Heat Dissipation (kW)		1.3	1.3	1.3	1.9	2.6	3	3.5	4.6	5.4	6.5
Dimention	Heigh(mm)	1600									
	Width(mm)	550					1100				
	Depth(mm)	800									
Environment	Temperature	0~40°C (32~96°F)									
	Humidity	0%~90%(Non-Condensing)									
	Altitude	< 1500M Above Sea Level									
Weight(kg)		200	250	300	400	480	550	750	900	1000	1250
Audable Noise		< 60 dBA (At 1 m)									
Certificate	CE	YES									
	EN50091-1,2	YES									
	FCC CLASSA	YES									
Short Circuit Protection		YES									
Lightning Protection		MOV									
EMC Filter		Input & Output									
Galvanic Isolation		Input & Output True Galvanic Isolation									
LED,LCD,Buzzer		YES									
Start On Battery		YES									

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## Battery Cabinet Specifications

### Battery Cabinet Design

The battery cabinet is designed with the same size and outlook as the UPS for convenience of installation when several cabinets of UPS and battery are aligned together. It can accommodate Lead Acid maintenance free battery 26Ah/12V \* 29 pcs (1 set) or 58 pcs (2 sets).

### Dimension (H xW x Dmm)

1600 x 550 x 800

### Weight

26Ah/12V x 29 pcs x 1 set is about 360kgs

26Ah/12V x 29 pcs x 2 sets is about 620kgs

